

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A condition analysis apparatus comprising:
a three-dimensional sensor for measuring, at a plurality of sampling points, sampling-point-moves in a height direction of an object existing in a target area; and
area definition means for defining an area where a plurality of the sampling-point-moves are in generally a same phase, wherein the area definition means searches a specific area for sampling points representing the sampling-point-moves in the same specific type of phase, forms a group of the sampling points representing the sampling-point-moves in generally the same phase based on search results of the searching, and defines the formed group of sampling points as an area where the sampling-point-moves in generally the same phase are occurring;
said three-dimensional sensor comprising:
a projection device for projecting a light pattern on the target area;
an image capturing apparatus for capturing an image of the target area while the light pattern is projected thereon, said image capturing apparatus being installed distanced from said projection device; and
measurement means for measuring shifts of the pattern on the captured images,
wherein sampling-point-moves in the height direction of the object are measured at the plurality of points based on the shifts of the pattern measured.
2. (Original) The condition analysis apparatus as recited in claim 1, further comprising:
information output means for outputting information of an area including the area defined by the area definition means.
3. -4. (Cancelled)
5. (Previously Presented) The condition analysis apparatus as recited in claim 1,

wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring.

6. (Previously Presented) The condition analysis apparatus as recited in claim 2, wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring.

7. – 10. (Cancelled).

11. (Previously Presented) The condition analysis apparatus as recited in claim 1, wherein the area definition means is further for defining two or more areas in different phases, defining a boundary between the two or more areas, and defining the areas divided by the boundary as new areas.

12. (Previously Presented) The condition analysis apparatus as recited in claim 2, wherein the area definition means is further for defining two or more areas in different phases, defining a boundary between the two or more areas, and defining the areas divided by the boundary as new areas.

13. (Cancelled).

14. (Previously Presented) The condition analysis apparatus as recited in claim 1, further comprising:
anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means.

15. (Previously Presented) The condition analysis apparatus as recited in claim 2, further comprising:

anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means.

16. (Cancelled).